

1072-8

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FOR

POWERFUL BREEZE PENETRATION

COMPLETE VENTILATION

ECONOMICAL SERVICE

*Install*  
**EMERSON ELECTRIC  
AIR CIRCULATORS**



# How to Install

## EMERSON-ELECTRIC AIR CIRCULATORS for greatest efficiency

The variety of applications for Emerson-Electric Air Circulators is as numerous and different as stores and buildings themselves. Each installation is individual, presents its own individual problems; therefore it is not possible to formulate set rules for all uses. However, some general installation suggestions indicated by these graphs and photographs are given and should be helpful.

Emerson-Electric Air Circulators are recommended for all types of buildings, wherever there is need for providing cooling breezes over large areas; such as in retail stores and shops, restaurants, hotels, taverns, industrial plants, recreation buildings, churches, etc. The conventional type fan gives localized distribution of air, and even when there is a complete installation of wall or ceiling fans, the addition of Emerson-Electric Air Circulators will do much to improve the ventilation and cooling results.

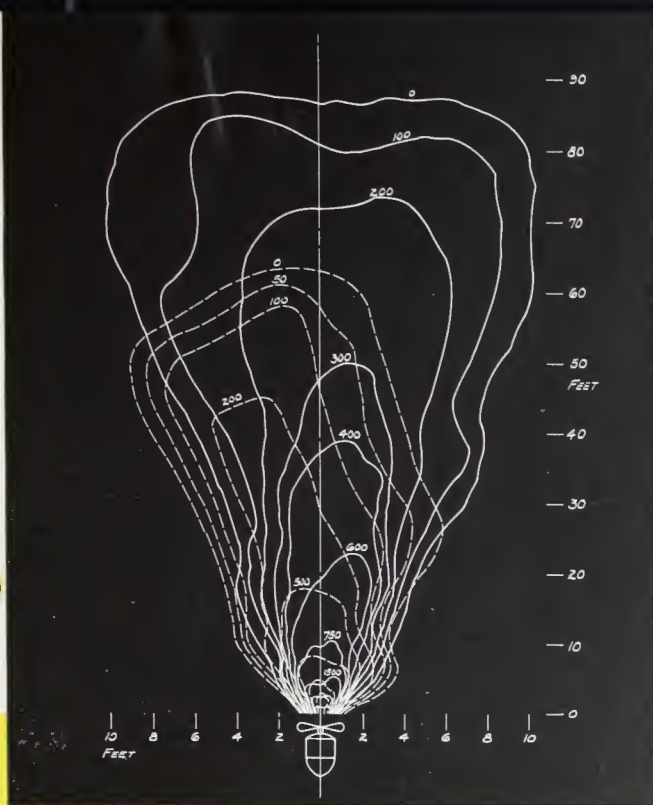


This floor plan of a store building 50 ft. x 100 ft., shows the placement of 24-inch, 2-speed Emerson-Electric Air Circulators. The fans are placed to blow from front to rear with the entry of outside air from the front doors and exhausting through windows in the rear. The location of columns, ceiling beams, and other obstructions that may reduce the free flow of air through the building, must be taken into consideration in placing the fans. The performance curves of the three types of Emerson-Electric Air Circulators, in unrestricted areas, are shown on the opposite page. These should be used as a guide in determining the proper size, number and placement of fans for any contemplated installation, bearing in mind that while 24-inch fans may provide the desired volume and velocity of air motion, 30-inch fans are the most desirable, due to the very quiet operation on low speed. Where quietness of operation is essential, recommend Emerson-Electric 30-inch Air Circulators based on low-speed performance. It is always advisable to install adequate equipment. The difference of one or two air circulators, in a large area, may have a considerable effect on the entire installation.

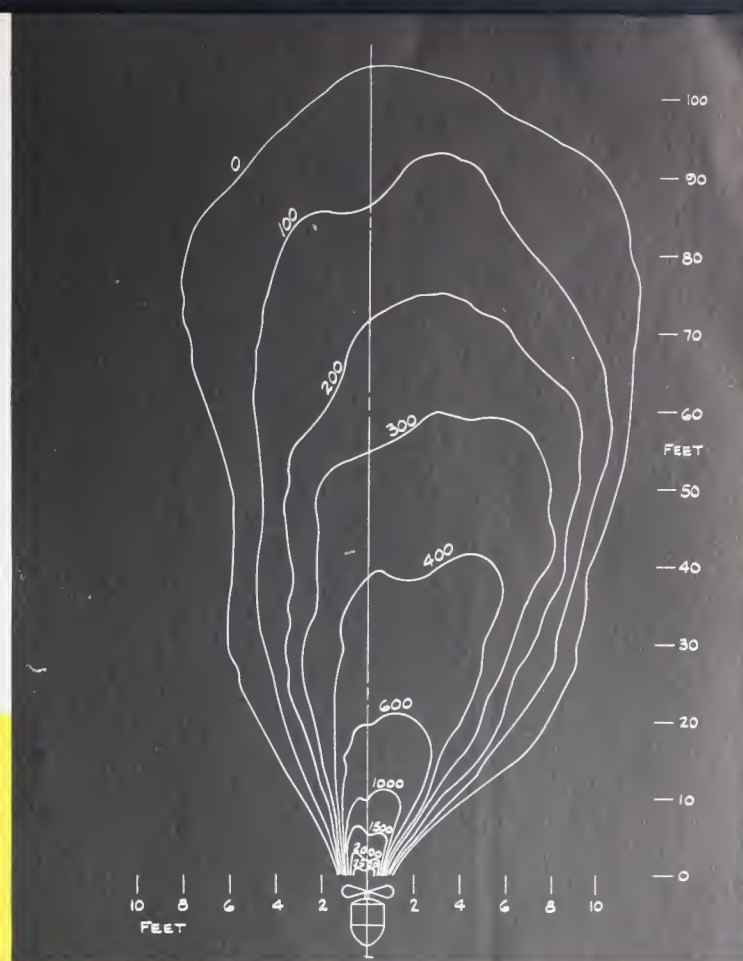
Ceiling height varies with each building; however, where possible, best results will be obtained when the fans are installed so the center of the fan is located approximately 9 feet from the floor. By tilting the fan downward at an angle of approximately 7 degrees, the fan will produce a satisfactory circulation of air at the breathing line, without causing a disturbing draft or interfering with the display of merchandise. In buildings with low ceilings, it may be desirable to mount the fans exactly horizontal or tilt them slightly upward, instead of downward, to accomplish best results. In buildings with exceptionally high ceilings, or in places where ceiling installation is not practical, one of the other three types of mountings—wall bracket, adjustable floor column, or counter column—may be used to advantage.







The air distribution of the Emerson-Electric 24-inch single-speed A.C. Air Circulator is indicated by the dotted line. This fan gives a maximum penetration of 60 feet, for an area 15 feet in width. The high speed distribution of the 24-inch, two-speed and single-speed D.C. Air Circulators is indicated by the solid line. They have a maximum penetration of 80 feet for an area 19 feet in width.



The air distribution of the Emerson-Electric 30-inch A.C. and D.C. Circulators give maximum penetration of 110 feet for an area 20 feet in width when operating at high speed, as shown in the above chart.

These performance charts illustrate air distribution with the three types of Emerson-Electric Air Circulators. The figures indicated on the curves are readings in velocity (feet-per-minute) at various distances from the fans, with fans operating at high speed in an unobstructed area.

Emerson-Electric two-speed Air Circulators give great flexibility to the installation and permit the most economical operation. For example, most buildings accumulate hot, stagnant air overnight, making the quarters uncomfortable. First thing in the morning turn the circulators on at high speed. In a short time all dead air is removed. Then reduce the fans to low speed until later in the day, when it may

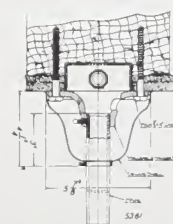
be necessary to again step them up to maximum speed. In this way, you regulate the air flow to conditions, keep the area comfortable at all times, at the lowest possible cost of operation. Continuous operation of Emerson-Electric Air Circulators at high or low speed will not injure the motors. 6000 hours (3 full seasons) of operation can be had without re-lubrication.

#### PERFORMANCE INFORMATION

Type	Speeds	Size	RPM	*CFM	†CFM	Maximum Velocity F.P.M.	Maximum Penetration in Feet	Maximum Distribution in Feet (Width)	Watts Input
S60WC	1-sp.	24"	1140	3600	7000	1885	60	15 ft.	185
S60WF	1-sp.	24"	1425	4500	5800	2320	75	17 ft.	340
S60WA	2-sp.	24"	1140/860	4500/3600	8000/6000	2440	80/60	20 ft.	270/170
S60WB	2-sp.	30"	1140/570	6000/3000	10000/5000	2525	110/55	20 ft.	355/145
D60TL	1-sp.	24"	1140	4800	8000	2350	80	20 ft.	260
D60TM	1-sp.	30"	1140	6000	10000	2350	110	20 ft.	285
D60TJ	2-sp.	24"	1140/750	4800/3100	8000/5200	2350	80/60	20 ft.	260/140
D60TK	2-sp.	30"	1140/750	6000/3900	10000/6600	2350	110/55	20 ft.	285/150

\*CFM—Cubic feet of air per minute—high speed—reading taken (Standard NEMA Test Method) one foot from fan.

†CFM—Cubic feet of air per minute—high speed—reading taken (Standard NEMA Test Method) four feet from fan.



New 4-Point Suspension Hanger Flange for Ceiling-Mounted Air Circulators.

Detail drawing showing method of mounting the ceiling flange over outlet box and assembly of hanger pipe and ceiling canopy. Fittings furnished include flange, 4 lag screws and ceiling canopy—no hanger pipe.





**ONE-YEAR  
GUARANTEE**

Adjustable floor-column mounting for Emerson-Electric Air Circulators. Base drilled for attachment to floor and equipped with rubber-covered extension cord and plug installed in column and connector for motor leads.

# 24-INCH AND 30-INCH EMERSON-ELECTRIC AIR CIRCULATORS

**2-SPEED A. C. — 1-SPEED AND 2-SPEED D. C.**

The American public is very definitely educated to the comfort and pleasure of proper ventilation and air circulation during the hot summer months. And every business man, whether he operates a store, shop, restaurant, hotel or factory, should realize the importance of making his establishment a comfortable place in which to work or do business.

Emerson-Electric Air Circulators provide the most economical cooling and ventilation for all types of business. Their ability to deliver large quantities of cooling, penetrating breezes—to give long hours of continuous trouble-free service—their quiet and low cost operation make them ideal for modern summer comfort. New uses for Emerson-Electric Air Circulators are being discovered right along—such as cooling closed frame and switch rooms in telephone buildings, air distribution in refrigeration rooms, preventing the entry of flies in food and dairy plants, in steel mills and other heavy industries. In the home, Emerson-Electric Air Circulators are installed in basements or attics to dispel the accumulated heat of the day after sundown and to bring in the cool evening air.

Emerson-Electric Air Circulators are available in seven models, 3 and 4-blade fans, each with adjustable floor-column, counter-column, ceiling or wall-bracket mountings. Heavy-duty, grease-packed, ball-bearing motors give 6000 hours (3 average seasons) of continuous service without re-lubrication. All types have fully-enclosed, streamlined, ball-bearing motors, polished blades and ornamental guards. The pages following give detailed information about the entire line of Emerson-Electric Air Circulators.

Size	No. Blades	Volts	Current	Speeds	R. P. M. and Watts	*Air Delivery	†Air Delivery	Weight		Type No.	Standard Finish	
								Net	Packed		Code Word	List Price
24"	3	110	60 cps	2	1140 rpm 270 watts 840 rpm 170 watts	4000 CFM 3000 CFM	8,000 CFM 6,000 CFM	27	34	3800A	RODOL	\$54.50
30"	3	110	60 cps	2	1140 rpm 330 watts 870 rpm 145 watts	6000 CFM 3000 CFM	10,000 CFM 6,000 CFM	41	65	3800B	RODOL	68.00
24"	3	115	D. C.	1	1140 rpm 260 watts	4000 CFM	8,000 CFM	39	50	3800C	RODOL	60.00
30"	3	115	D. C.	1	1140 rpm 260 watts	4000 CFM	8,000 CFM	42	56	3800D	RODOL	74.00
24"	3	110	D. C.	2	1140 rpm 260 watts 710 rpm 140 watts	4000 CFM 3100 CFM	8,000 CFM 5,200 CFM	38	50	3800E	RODOL	60.00
30"	3	110	D. C.	2	1140 rpm 260 watts 710 rpm 140 watts	6000 CFM 3100 CFM	10,000 CFM 5,200 CFM	41	57	3800F	RODOL	74.00
Ceiling-Mounting Fittings (no hinges, paper) Adjustable Floor-Column Mounting, Max. 4'11", Max. 3/4", floor to center of fan Counter-Column Mounting, 1'3", base to center of fan Wall-Bracket Mounting, 1'2", extension from wall												
						3000 CFM	8,000 CFM	45	67	3800G	RODOL	84.00
								46	65	3800H	RODOL	84.00
								48	60	3800I	RODOL	84.00
								45	47	3800J	RANGER	8.75

\*CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) one foot from fan.

†CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) four feet from fan.

Fans may be furnished specially for 220 volts, 60 cycles. No fans made for voltages higher than 220 volts.

Air Circulator prices apply to fans only, without mounting fittings.

Performance data subject to variation of 10% plus or minus. All data subject to change. Motor packed in box—blades and guard in separate carton.

Regularly carried in stock at St. Louis, New York, Chicago and by conveniently located wholesalers.



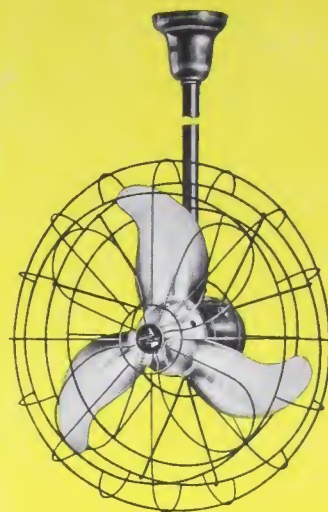
# Move More Air QUIETLY 3-Blade Models

**QUIETER OPERATION      GREATER BREEZE  
PENETRATION      POWERFUL BALL-BEARING MOTORS**

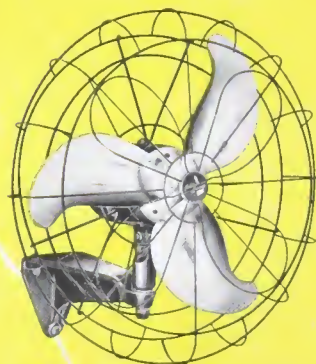
24-INCH AND 30-INCH FANS, 2-SPEED A.C.  
ALSO 1-SPEED AND 2-SPEED D.C.

## Distinctive Emerson-Electric GREATER VALUE Features

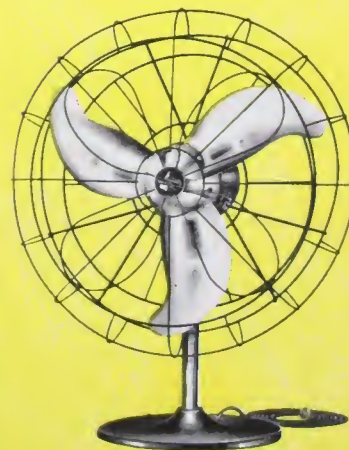
- MOTOR:** A.C. Fans—Induction-type, fully-enclosed, streamlined design, leads extended twenty inches from motor.  
D.C. Fans—Fully enclosed, brush and commutator type—brushes readily renewable without dismantling motor.
- SHAFT:** Solid-steel shaft  $\frac{5}{8}$ " diameter.
- BEARINGS:** Ball bearings, grease packed.
- LUBRICATION:** As shipped from the factory, fans will give several normal seasons of service before re-lubrication is necessary. (Approximately 6000 hours.)
- SWITCH:** Canopy pull switch in back cover of motor.
- BLADES:** All types, 3 blades, of formed, heavy-gauge aluminum—highly polished.
- GUARD:** Two-piece, ornamental-design guard of heavy-gauge wire—spot welded.
- ADJUSTMENT:** Can be tilted to any position from 8° above horizontal to 25° below horizontal on ceiling installation or vice versa in column mounting. Insulated with rubber in mounting yoke.
- STANDARD FINISH:** Lustrous baked black-enamel finish on motor and guard—blades in polished aluminum.
- CEILING-MOUNTING FITTINGS:** Consist of motor socket, round malleable flanged hanger with four lag screws and ceiling canopy, finished in black (no hanger pipe).
- FLOOR-COLUMN MOUNTING:** Adjustable floor-column mounting permits placing the fan within the following range—minimum 4' 11", maximum 8' 4", from floor to center of fan. Base drilled for attachment to floor. Furnished with 20 feet of rubber-covered cord and plug, with connector for attachment to motor leads, installed in stand column. Base packed separately. Base finished in black wrinkle with seamless-steel tube finished in polished chromium. Coupling and motor socket finished in baked black japan.
- COUNTER-COLUMN MOUNTING:** Made in one size with center of fan 1' 8" from the bottom of the base. Base drilled for attachment to counter. Furnished with 12 feet of rubber-covered cord and plug. Connector for attachment to motor leads installed in stand column. Base and motor socket finished in baked black japan—column, seamless-steel tube finished in polished chromium plate.
- WALL-BRACKET MOUNTING:** Furnished complete with stud, motor socket and lag screws for attachment to wood construction. Extends 14" from wall and provides swivel adjustment to either side. Finished in baked black japan.



Ceiling-mounted Emerson-Electric 3-Blade Air Circulator furnished complete with flange, 4 lag screws and ceiling canopy—no hanger pipe.



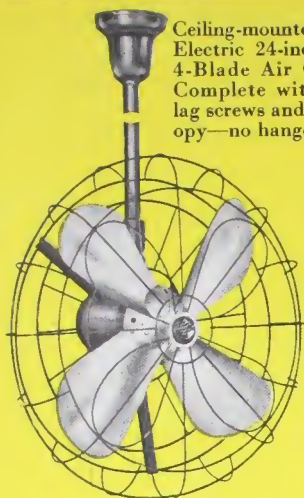
Wall-bracket mounting for Emerson-Electric 3-Blade Air Circulators. Complete with lag screws for attachment to wood construction.



Counter-column mounting for Emerson-Electric 3-Blade Air Circulators. Base drilled for attachment to counter and equipped with protective felt.



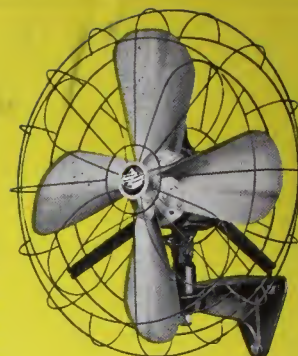




Ceiling-mounted Emerson-Electric 24-inch, 1-speed, 4-Blade Air Circulator. Complete with flange, 4 lag screws and ceiling canopy—no hanger pipe.



Counter-column mounted Emerson-Electric 24 inch, 1-speed, 4-Blade Air Circulator. Base drilled for attachment to counter and equipped with protective felt.



Wall-bracket mounted Emerson-Electric 24-inch, 1-speed, 4-Blade Air Circulator. Complete with lag screws for attachment to wood construction.

## EMERSON-ELECTRIC 4-Blade Air Circulators 24-Inch, Single-Speed, 25 and 60 Cycle A.C.

Single-speed Air Circulators are suitable for many types of installations. This four-blade model has become "standard equipment" in many of America's largest institutions. It is equipped with a powerful ball-bearing motor and has polished chromium-plated steel blades. Available with adjustable floor-column, ceiling, counter or wall-bracket mounting.

Even where there is a complete installation of wall, desk or ceiling fans, the addition of Emerson-Electric Air Circulators will greatly improve the ventilation—deliver large volumes of cooling, penetrating breezes over large areas—quietly, economically.

### Distinctive Emerson-Electric GREATER VALUE Features

<b>MOTOR:</b>	Induction-type, fully-enclosed, streamlined design, leads extended twenty inches from motor.
<b>SHAFT:</b>	Solid-steel shaft $\frac{5}{8}$ " diameter.
<b>BEARINGS:</b>	Ball bearings, grease packed.
<b>LUBRICATION:</b>	As shipped from the factory, fans will give several normal seasons of service before re-lubrication is necessary. (Approximately 6000 hours.)
<b>SWITCH:</b>	Canopy pull switch in back cover of motor.
<b>BLADES:</b>	Four blades, formed steel, chromium plated.
<b>GUARD:</b>	Two-piece ornamental design guard of heavy gauge wire—spot welded.
<b>ADJUSTMENT:</b>	Can be tilted to any position from 8° above horizontal to 25° below horizontal in ceiling mounting or vice versa in column mounting. Insulated with rubber in mounting yoke.
<b>FINISH:</b>	Standard Finish—Lustrous baked black enamel finish on motor and guard—Blades in polished chromium.  Chromium Finish—Motor field ring and mounting yoke attachment finished in aluminum lacquer. Front end cover and back enclosing shell polished chromium plate. Highly-polished chromium-plated blades. Guard satin-finished chromium plate.

#### CEILING-MOUNTING FITTINGS:

#### FLOOR-COLUMN MOUNTING:

#### COUNTER-COLUMN MOUNTING:

#### WALL-BRACKET MOUNTING:

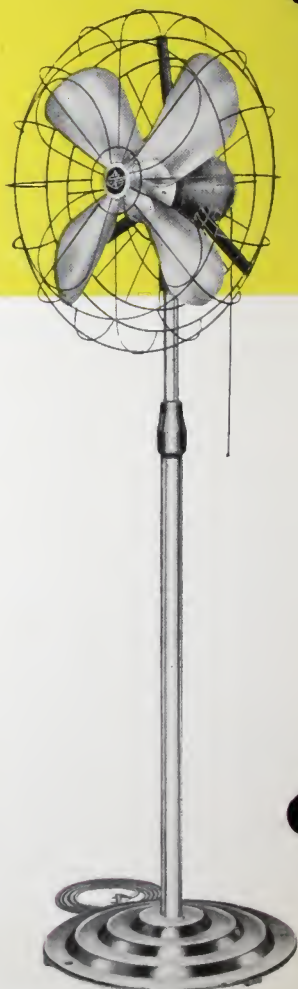
#### MOUNTING ACCESSORIES — STANDARD FINISH

Consist of motor socket, round malleable flanged hanger with four lag screws and ceiling canopy, finished in black (no hanger pipe).

Adjustable floor-column mounting permits placing the fan within the following range—minimum 4' 11", maximum 8' 4", from floor to center of fan. Base drilled for attachment to floor. Furnished with 20 feet of rubber-covered cord and plug with connector for attachment to motor leads installed in stand column. Base packed separately. Base finished in black wrinkle with seamless-steel tube finished in polished chromium. Coupling and motor socket finished in baked black japan.

Made in one size with center of fan 1' 8" from the bottom of the base. Base drilled for attachment to counter. Furnished with 12 feet of rubber-covered cord and plug, with connector for attachment to motor leads installed in stand column. Base and motor socket finished in baked black japan—column, seamless-steel tube finished in polished chromium plate.

Furnished complete with stud, motor socket and lag screws for attachment to wood construction. Extends 14" from wall and provides swivel adjustment to either side. Finished in baked black japan.



#### ONE-YEAR GUARANTEE

Size	No. Blades	Volts	Current	Speeds	R. P. M. and Watts	*Air Delivery	†Air Delivery	Weight		Type No.	Code Word	List Price Each
								Net	Pkd.			
STANDARD FINISH												
24"	4	110	60 cy.	1	1140 rpm 185 watts	3600 CFM	7000 CFM	36	52	S60WC	KOHAR	\$45.00
24"	4	110	25 cy.	1	1425 rpm 340 watts	4500 CFM	5600 CFM	36	52	S60WF	KADEB	47.00
Ceiling Mounting Fittings (no hanger pipe)								5	6		KOBON	3.25
Adjustable Floor-Column Mounting, Min. 4'11", Max. 8'4", floor to center of fan								60	65		KOCAL	20.50
Counter-Column Mounting, 1'8", base to center of fan								18	20		KODEN	11.50
Wall-Bracket Mounting 1'2", extension from wall								15	17		KOGER	9.75

\*CFM—Cubic feet of air per minute—reading taken (Standard NEMA Test Method) one foot from fan.

†CFM—Cubic feet of air per minute—reading taken (Standard NEMA Test Method) four feet from fan.

Fans can be furnished specially for 220 volts, 60 cycles. No fans made for voltages higher than 250 volts.

Air Circulator prices apply to fans only, without mounting fittings. Performance data subject to variation of 10% plus or minus. All data subject to change.

Motor packed in box—blades and guard in separate carton. Regularly carried in stock at St. Louis, New York, Chicago and by conveniently located wholesalers.



# Chromium-plated AIR CIRCULATORS

CARRIED IN STOCK FOR PROMPT SHIPMENT

These fans are coming into wider use every year. The sparkling chromium finish adds a touch of beauty and refinement to the most elaborate surroundings. By combining beauty of finish with recognized dependable service their application has been extended to an ever-widening market. They are ideal for finely furnished stores, beauty shops, club-rooms, restaurants, hospitals and places of recreation.

Chromium-plated Emerson-Electric Air Circulators and Accessories are available from stock, in five types and four styles of mountings. The

gleaming, polished aluminum blades (Type S60WC has chromium-plated blades) and chromium-plated motor covers blend beautifully with the satin-finish, chromium-plated guard and aluminum lacquer finish on the motor field ring. The ceiling, wall-bracket and counter-column fittings are finished in chromium over all parts, while the adjustable floor-column mounting has a black-wrinkle base, chromium stand pipe and black-japanned coupling, a very pleasing combination. For Air Circulator specifications, excepting finish, see pages 5 and 6.



Ceiling-mounted Air Circulator Type No. S60WC—24-inch A.C., single speed. Chromium-plated finish (hanger pipe not furnished). One-Year Guarantee.



## FINISH SPECIFICATIONS ONLY

### AIR CIRCULATORS

<b>MOTOR FINISH:</b>	Field ring and mounting yoke attachment finished in aluminum lacquer. Front end cover and back enclosing shell polished chromium plate.
<b>BLADE FINISH:</b>	Types S60WC and S60WF—polished chromium plate, other types highly polished aluminum.
<b>GUARD FINISH:</b>	Satin-finish chromium plate.

### AIR CIRCULATOR MOUNTING ACCESSORIES

<b>CEILING-MOUNTING FITTINGS:</b>	Motor-socket and ceiling shell finished in polished chromium plate. (Hanger pipe not furnished. See note at bottom of page for list price.)
<b>FLOOR-COLUMN MOUNTING:</b>	Base finished in black wrinkle, coupling in baked black japan, column and motor-socket in polished chromium plate.
<b>COUNTER-COLUMN MOUNTING:</b>	Column, base and motor-socket finished in polished chromium plate.
<b>WALL-BRACKET MOUNTING:</b>	Bracket, stud and motor-socket finished in polished chromium plate.
Type S60WA Air Circulator on Adjustable Floor-Column Mounting. One-Year Guarantee.	

Size	No. Blades	Volts	Current	Speeds	R. P. M. and Watts	*Air Delivery	†Air Delivery	Weight		Type No.	Chromium Finish	
								Net	Pkd.		Code Word	List Price
24"	4	110	60 cy.	1	1140 rpm 185 watts	3600 CFM	7,000 CFM	36	52	S60WC	KOCOP	\$52.75
24"	3	110	60 cy.	2	1140 rpm 270 watts	4800 CFM	8,000 CFM					
					860 rpm 170 watts	3600 CFM	6,000 CFM	37	54	S60WA	KLANT	62.25
30"	3	110	60 cy.	2	1140 rpm 355 watts	6000 CFM	10,000 CFM					
					570 rpm 145 watts	3000 CFM	5,000 CFM	41	65	S60WB	KHOTM	76.75
24"	3	115	D. C.	1	1140 rpm 260 watts	4800 CFM	8,000 CFM	38	55	D60TL	TESOF	67.75
30"	3	115	D. C.	1	1140 rpm 285 watts	6000 CFM	10,000 CFM	42	66	D60TM	TESAB	82.25
								5	6		KNIPS	4.50
								60	65		KOGAP	21.00
								18	20		KNOLP	15.00
								15	17		KLEMT	13.25

CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) one foot from fan.  
 †CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) four feet from fan.  
 Fans can be furnished specially for 220 volts, 60 cycles. No fans made for voltages higher than 250 volts.

Air Circulator prices apply to fans only, without mounting fittings. Performance data subject to variation of 10% plus or minus. All data subject to change.  
 Motor packed in box—blades and guard in separate carton.  
 Regularly carried in stock at St. Louis, New York, Chicago and by conveniently located wholesalers.







# Install . .

## EMERSON - ELECTRIC

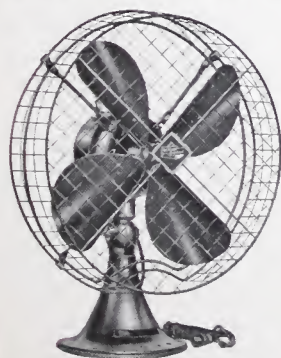
### *High-Velocity*

## AIR CIRCULATORS

Emerson-Electric High-Velocity Air Circulators are favorites of factories the nation over. Rugged, ball-bearing motors, built for heavy duty service, give 6000 hours (3 seasons) of continuous service without re-lubrication; deliver great volumes of cooling, penetrating breezes long distances and do the job at low cost. Installations can be permanent for cooling and ventilating large areas, or portable to take care of localized conditions. Available in 7 models, each with adjustable floor-column, counter-column, ceiling and wall-bracket mounting accessories. Be sure to specify the code word designating the fan you want when you order.

### *New* 16-Inch Parker-Blade

#### NON-OSCILLATOR WITH WIRE-MESH GUARD



A powerful, 3-speed fan, capable of delivering a large volume of cooling, penetrating breeze. Can be mounted on wall or bolted in upright position. Heavy wire-mesh guard makes the fan safe for industrial use. A really desirable feature. Backed by the famous Emerson-Electric 5-Year Factory-to-User Guarantee.

#### CAPACITOR MOTOR CUTS CURRENT COST 24%

That's the *plus* value in this factory-safe breeze maker that means money to you. Oil-tight, dust-proof bearing construction reduces maintenance time and expense.



#### PORTABLE!

Emerson-Electric Ball-bearing Air Circulators, 1-speed and 2-speed, 24 and 30-inch fans for A.C. and D.C. available with all four types of mounting accessories.

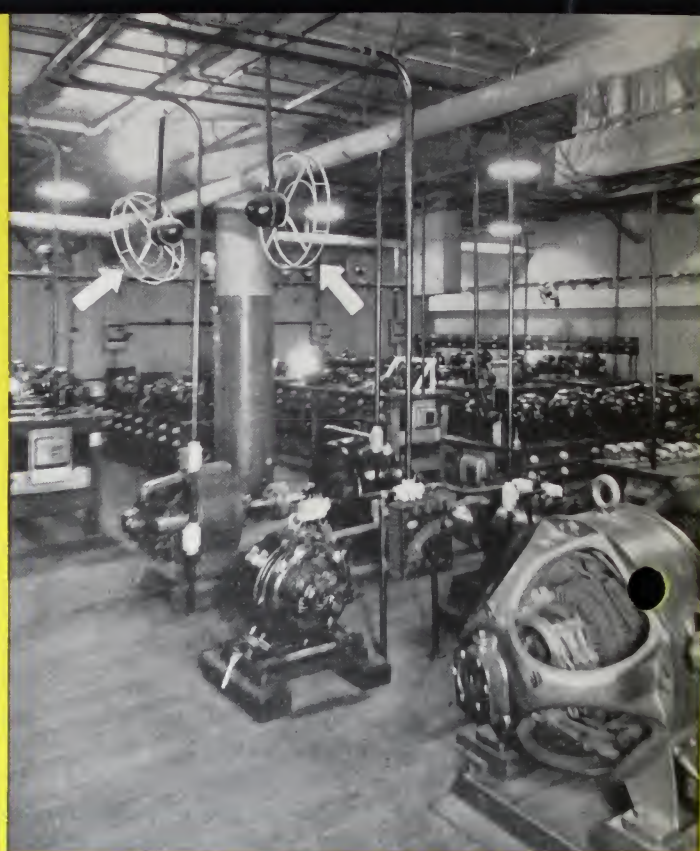


# 39,500 HOURS CONTINUOUS SERVICE

*Proves*

## EMERSON-ELECTRIC QUALITY

When the design of the Emerson-Electric Air Circulator (type S6SL-368-4620-Airplane Blade) was completed about seven years ago, two circulators from regular production were placed on endurance test in the Emerson-Electric Research Laboratory to determine the life of the various parts. This endurance run totaled 39,500 hours, equivalent to four and one-half years—365 days each year and 24 hours per day.



These Circulators were suspended from the ceiling of the endurance test room, where temperatures range from a minimum of 90° F. during the winter to a maximum of approximately 120° F. in the summer.

### *Tested for Quietness*

At the end of this endurance run, both circulators were removed from the endurance test room and tested for quietness.

One circulator was found to be exceptionally quiet, having performance superior in quietness to that standard which is required of a new air circulator.

The second circulator was judged, by the Research Engineers, to be within the standard of quietness set for new fans. This circulator was then dismantled and examined for condition of the lubricant and the bearings.

### *Results of Test*

Operating 39,500 hours continuously is equivalent to operating sixteen hours a day, eight months each year, for ten years. Such service is more strenuous than service normally required in all but tropical climates.

These facts illustrate the inherent quality that is built into Emerson-Electric Air Circulators. The results of this test prove that:

1. The additional conservatively estimated life of the second circulator would be double such heavy service requirements—twenty seasons of uninterrupted service, even without additional lubrication.
2. The freely turning shaft demonstrated that the grease had lost none of its lubricating quality, even after the 4½-year endurance run. Under such strenuous test only the finest lubricant will retain its body and not thin out.
3. The condition of the bearings was considered to comply with the requirements for a new bearing. In the opinion of the Engineers making this test, at least an additional 4½ years of service remained in these bearings, without need of change or replenishment of the lubricant.
4. The ball-bearing motor, standard on all Emerson-Electric Air Circulators, proved its ability to withstand the rigorous conditions of the test and the heavy thrust load of the air circulator blade.
5. Even under the most trying conditions in actual service, none of which are ever likely to be as severe as those under which the test was conducted, the Emerson-Electric Air Circulator will maintain its record of a long and trouble-free life, without the slightest attention from the user.

### EXCEPTIONAL MARGIN OF SAFETY

Blade construction is an important factor in Air Circulator design due to the diameter of the blades and the speed at which they rotate. In special tests, the blades of Emerson-Electric Air Circulators were run at excessive speeds and

proved to have a factor of safety in excess of 4 to 1 before yielding. Although not tested to the breaking point, these tests indicate an even higher ratio of safety before the breaking point would be reached.

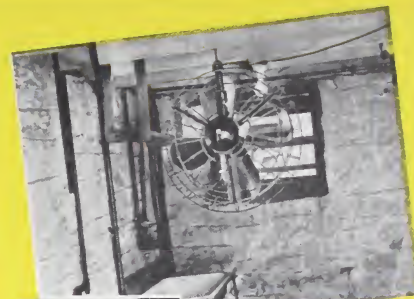




Exhausting  
from Basement



Exhausting  
from Basement



Exhausting  
from Basement



Exhausting  
from Hallway



Exhausting  
from Attic



Exhausting  
from Attic



# SUMMER *Home Ventilation*

## WITH EMERSON-ELECTRIC AIR CIRCULATORS

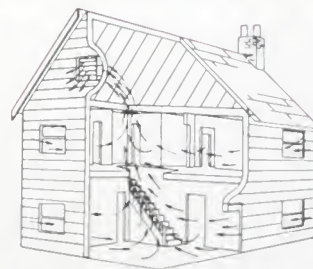
Air Circulators are used with excellent results in replacing the accumulated hot, stifling air in the home with cooler outdoor air after sundown. Operation throughout the night will result in a comforting breeze of cool outside air, and reduction of the inside temperature to that prevailing outdoors.

Six typical installations are pictured. When space will permit, installation should be made in the attic, however both attic and basement installations have proved equally effective.

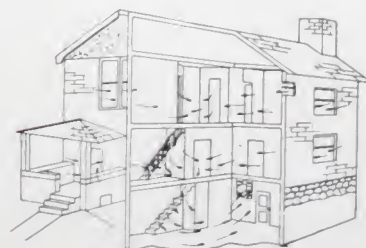
The air circulation is controlled by opening outside doors and windows only in the rooms to be ventilated. Upon retiring, the entire flow of air should be directed through the bedrooms, by closing all other outside doors and windows. The door leading to the attic or basement must be opened to provide a passage for the air to the fan.

One 24-inch, 2-speed fan (4800 CFM) is ample in the average home with 2 bedrooms. Two fans should be used in the average home with 3 or 4 bedrooms.

More detailed information will be furnished on request, accompanied by a rough floor-plan of home showing location of rooms, windows, doors, stairs, etc.



This illustration shows route of air travel when fan is installed in attic—obviously all doors and windows cannot be opened at the same time, only the ones in room or rooms to be ventilated.



This illustration shows route of air travel when fan is installed in the basement. All doors and windows, except in the rooms to be ventilated, are kept closed.





### WHAT OWNERS SAY ABOUT EMERSON-ELECTRIC AIR CIRCULATORS

**FROM TOLEDO, OHIO.** — "We have a lot of food of some kind installed in our store front which in our rooming condition results. We have recently installed Emerson-Electric Air Circulators and it was a lot more comfortable inside our store during those hot days than it was outside. We are not bothered with heat though we do not have much more done."

**FROM ST. LOUIS, MO.** — "The Emerson-Electric Air Circulators which we recently installed in our kitchen. They proved satisfactory in every respect. In fact it is so quiet and perfect in every way, they have made the entire state of moving air out in the open and have done the work of many other very good ones."

**FROM PHOENIX, ARIZ.** — "These are the best fans I have ever used. We have five in the front part of the building and they cool the air 100° F. in the room."

**FROM BIRMINGHAM, ALA.** — "The Emerson-Electric Fan is really a perfect fan in that it is so quiet and efficient. We have in, directly under the kitchen, where the food can be put in."

**FROM COLUMBUS, NEB.** — "I like the Emerson fan and believe that it has good fan itself. This fan has been of great use and gives good circulation."

**FROM DECATUR, ILL.** — "We use 100° fan most for this type of fan. We have in a kitchen condition, and they certainly have been our salvation. Our customers certainly thank us, and we receive letters of appreciation."



# The Modern Way to Summer Comfort